

## **Varian A-60 NMR**

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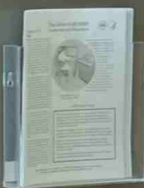
# The Varian A-60 NMR

How does NMR work? Each atom has a nucleus which spins like a top. NMR uses a magnetic field to line up the spinning nuclei in the same direction. A second magnetic field perpendicular to the first magnetic field makes the nuclei flip over. The spinning nuclei only flip if the second magnetic field is in resonance with the nucleus' spin frequency. By tracking the energy the nuclei release when they flip, an NMR records the unique spectra associated with each type of atom.

## Accessing the NMR

The Varian A-60 NMR spectrometer is housed in a shielded room. The room is shielded to protect the public from the strong magnetic field. The room is also shielded to protect the NMR from external magnetic fields.

The A-60 is a 60 MHz NMR spectrometer. It is used for the study of organic compounds and other materials. The A-60 is a very important instrument in the study of chemistry and physics.





A Varian A-60 NMR (Nuclear Magnetic Resonance) used at NIH in the 1960s is located in Building 50.